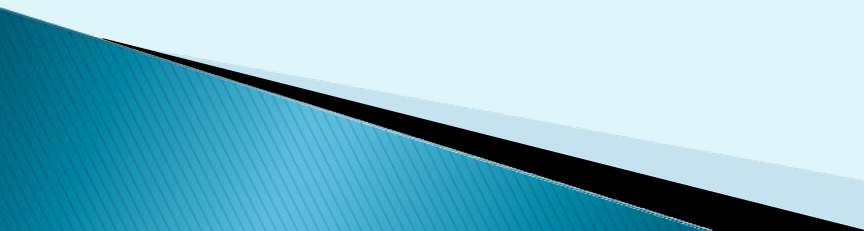


Methodology  
of the  
Environmental Scoring of  
Renewable Energy Projects  
by the  
California Energy Commission  
and  
California Public Utilities Commission

December 19, 2012



# Project Scoring Process

- ▶ CPUC requested the CEC Staff score 105 Commercial projects with approved Power Purchase Agreements for Project Environmental Viability in July 2012.
- ▶ CEC staff cross-checked CPUC Commercial projects database with Renewable Energy Action Team August 2012 database.
- ▶ When the two databases were combined, a total of 326 projects were eventually scored for the 6 DRECP Alternatives using the Environmental Scoring Matrix.
- ▶ Each project received a final score of the average for the 6 Alternatives.

# Databases Reviewed

	List Name	Number of projects	Project location	Source or use of project list
1	CPUC Commercial Project List	105	Lat/Long @ CEC	Projects with utility-approved Power Purchase Agreements
2	REAT List	221	Lat/Long @ CEC	CEC List of REAT Projects
	Total Projects Scored	326		

The 326 Projects were scored for each of the 6 Alternatives scenarios for a total of 1956 datapoints.

# Environmental Scoring Methodology

- ▶ A score was assigned based on the location of a project using one of five categories (see next slide).
- ▶ Scores were based on positive preferences for projects in Development Focus Areas or on disturbed lands.
- ▶ Negative (high/worse) scores were given for projects outside a DFA but within the DRECP boundary.
- ▶ Neutral scores (50) were assigned to projects on non-desert, non-disturbed lands outside of the DRECP.
- ▶ Rooftop mounted DG projects were assigned best (lowest) scores regardless of location relative to the DRECP and DFAs.

# Environmental Scoring Matrix

Category	DG?	Project Location			Score 0=best 100=worst	Location Examples
		In DRECP?	Disturbed Lands?	In a DFA?		
1	N	Y	N/A	Y	25	All ground-mounted projects in a DFA and not described by any other categories or located on active military bases.
2	N	Y	N/A	N	80	All ground-mounted projects outside of a DFA located within the DRECP boundary and not described by any other categories.
3	N	N	N	N/A	50	All projects outside the DRECP; all projects on productive agricultural lands including ground-mounted PV outside the DRECP; any project that could not be scored individually; all non-California projects.
4	N	Y	Y	N/A	20	Ground-mounted PV or other RE on abandoned agricultural lands; closed facilities (e.g., abandoned military bases, closed or active mines); degraded/disturbed lands.
5	Y	Y	Y	N/A	0	Roof-top solar PV, Solar PV projects located as shade structures in parking lots, ground-mounted PV at waste water treatment plants, on remote brownfields, remote DG on brownfields, landfills, remediated sites, at existing substations/electric facilities, Superfund sites, quarries, and industrial plants. This list of sites pertains to all types of renewable energy technologies. Projects in DFAs on degraded/disturbed soils.

# Environmental Scoring Process

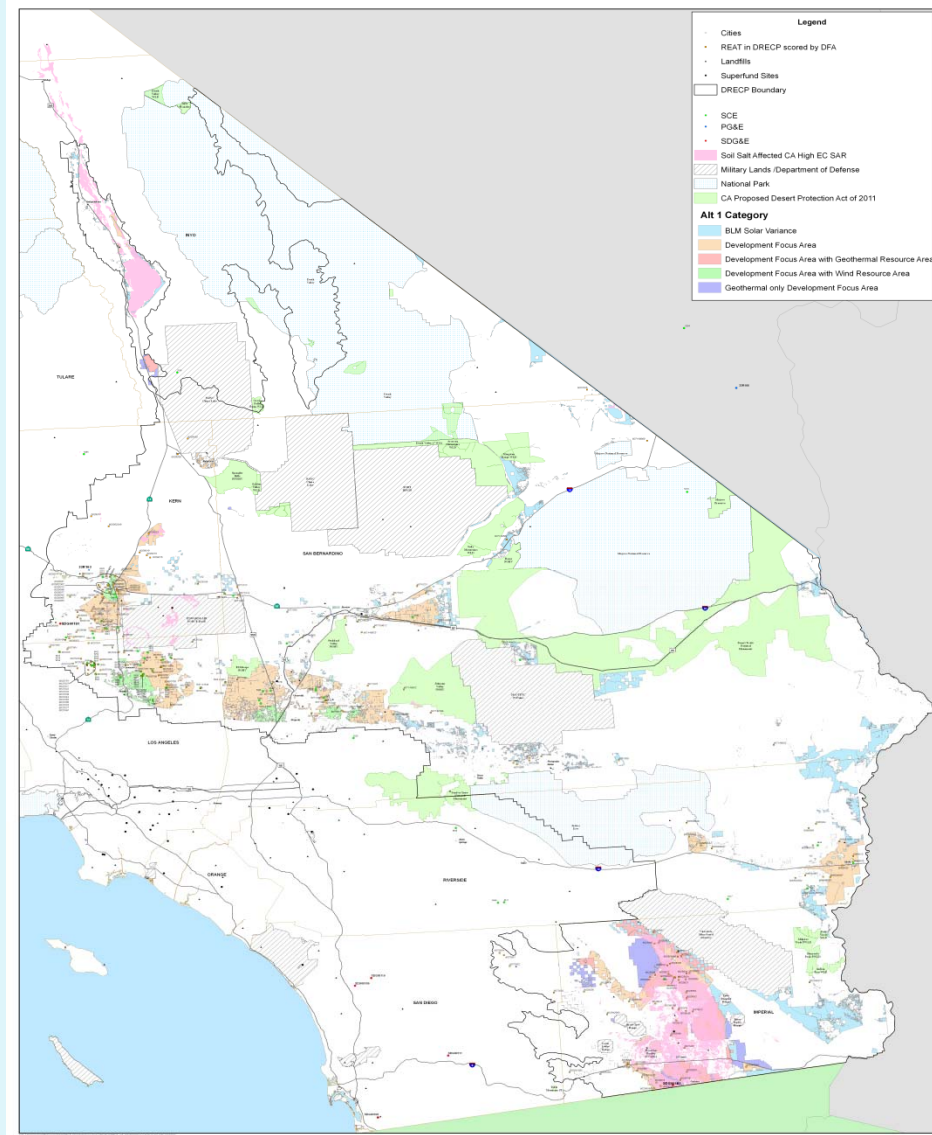
- Ensure that all projects had a unique CPUC or CEC ID number linked to latitude and longitude coordinates.
- CEC Cartography input latitude and longitude data to produce maps for each of the 6 DRECP Alternatives.
- All 1956 (326 projects X 6 alternatives) data points were verified using Google Earth at 2 miles elevation or less depending on the project site.

# SAMPLE SCORE SHEET

NAME	County	Type	MW	CREZ	REAT_ID	ALT1	ALT2	ALT3	ALT4	ALT5	ALT6	Average	Comment
Hall	Los Angeles	Solar PV	3.5	N/A	603705	80	25	25	25	25	25	34.17	
Absolutley Solar	Los Angeles	Solar PV	3	CREZ 47	603761	25	25	25	25	25	25	25	
Sand Canyon	Kern	Wind	24	CREZ 52	6029071	0	0	0	0	0	0	0	Landfill
Blue Diamond Solar Energy	Los Angeles	Solar PV	20	CREZ 47	603763	25	25	25	25	25	25	25	
Oro Verde Solar (Edwards AFB)	Kern	Solar PV	450	CREZ 52	6029007	25	25	25	25	25	25	25	MB-EAFB
Silverado Power	Los Angeles	Solar PV	34	CREZ 47	603765	0	0	0	0	0	0	0	Quarry
Aurora Solar LLC	Los Angeles	Solar PV	20	CREZ 47	603766	25	25	25	25	25	25	25	
Sunlight Partners	Los Angeles	Solar PV	2	N/A	603767	20	20	20	20	20	20	20	Aag
Sunlight Partners	Los Angeles	Solar PV	4	N/A	603768	25	25	25	25	25	25	25	
Borax Solar Project	Kern	Solar PV	20	CREZ 50	6029154	0	0	0	0	0	0	0	IS Mining
UC/CDWR Joint Solar Project	Los Angeles	Solar PV	20	CREZ 47	6037009	0	0	0	0	0	0	0	Substation
Desert Vista	Los Angeles	Solar PV	25	N/A	6037043	0	0	0	0	0	0	0	Mob Hm Pk
Wonder Valley	San Bernardino	Solar PV	100	N/A	6071008	20	20	20	20	20	20	20	IS
El Mirage	San Bernardino	Solar PV	20	CREZ 38	6071009	80	80	80	80	80	80	80	
Alta Addendum II	Kern	Wind	330	CREZ 52	6029085	25	25	25	25	25	25	25	
Pacific Wind	Kern	Wind	151	CREZ 52	6029088	80	25	25	25	25	25	34.17	

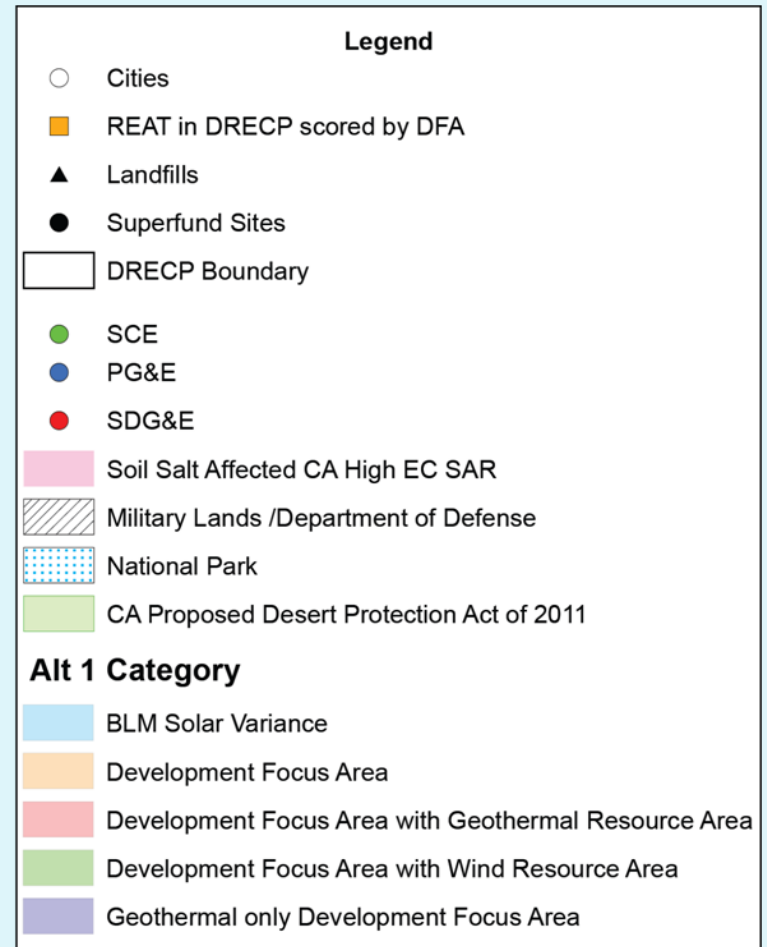
# Environmental Scoring Process

- The Development Focus Areas were mapped for each of the 6 DRECP alternatives.
- Project locations were added to each alternative map.
- Each project was assigned a score for each alternative.
- The 6 scores were averaged for a final score.

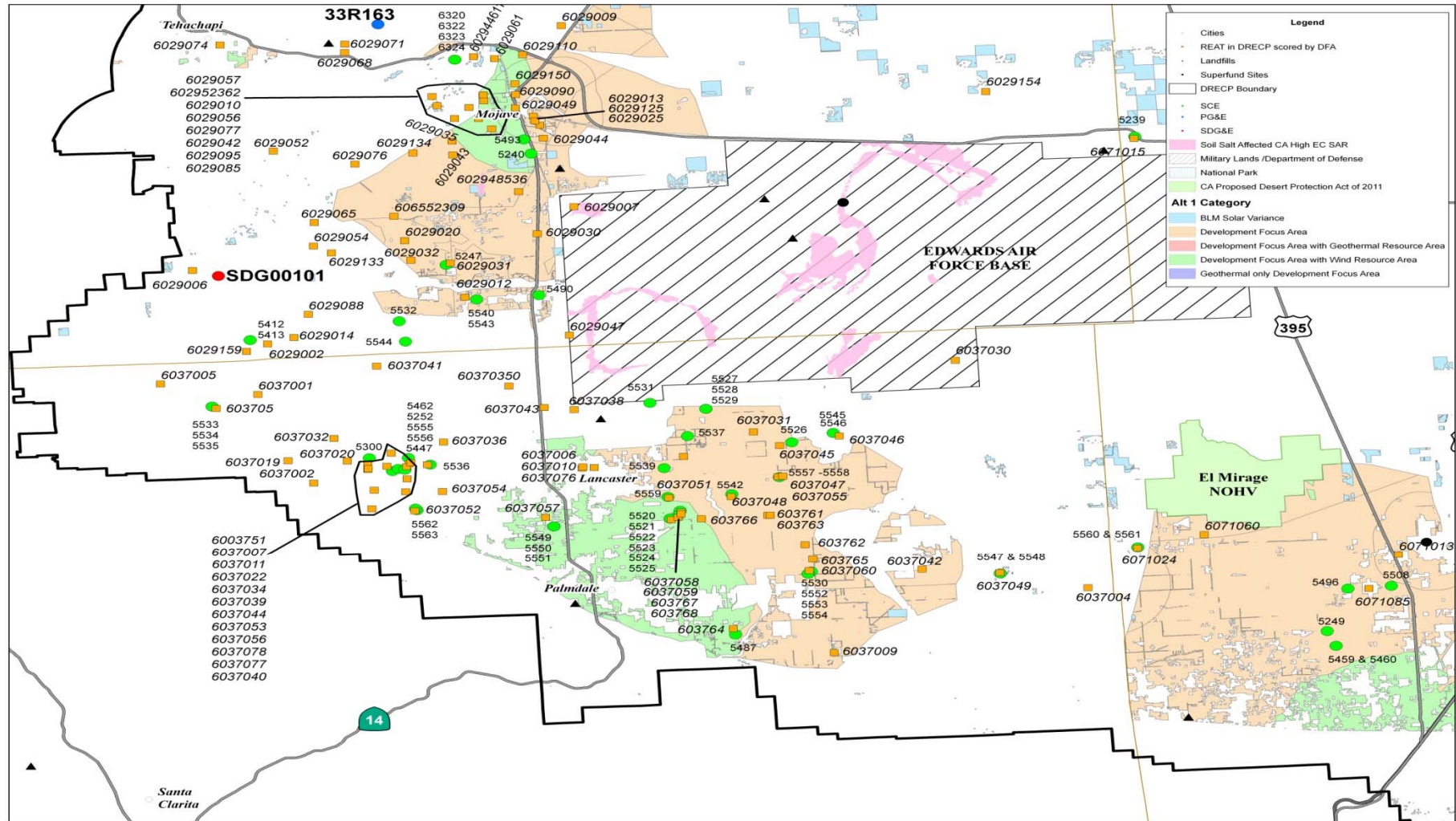


# Environmental Scoring Process

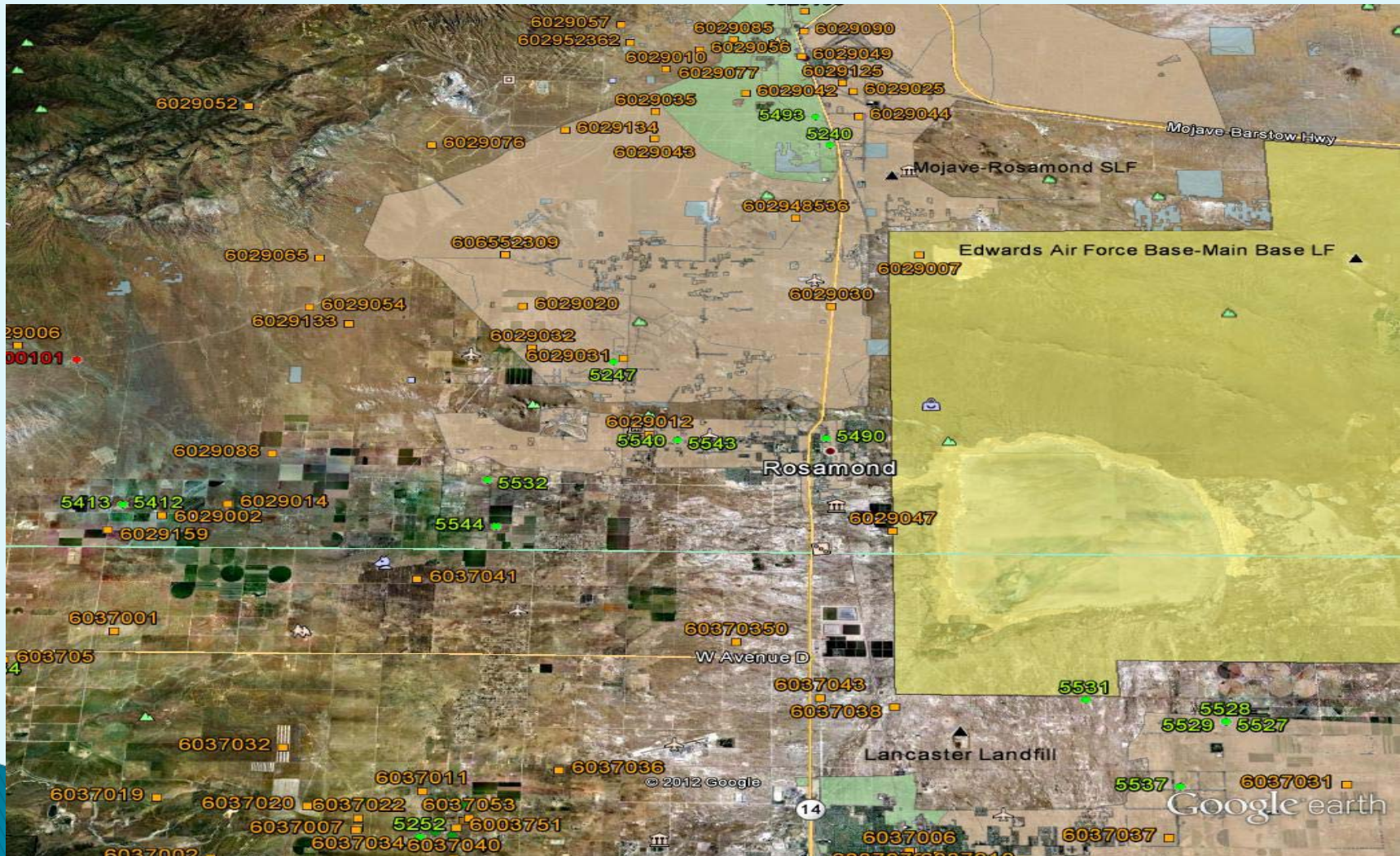
- Additional overlays for each DRECP Alternative included landfills, Superfund sites, and Salt-contaminated soils.
- Each project was identified by its CPUC ID or CEC REAT ID on the maps.



Each data point on the map was scored using the Environmental Scoring Matrix for each Alternative.



# All DRECP Alternatives scoring required the use of Google Earth to verify on-ground conditions



# Quality Control of Data

- ▶ After each map was produced, the database(s) were sorted by Unique ID to verify that each data point was scored. As the data points shown on the maps were scored, each project was highlighted on the map.
- ▶ The scores were then averaged and reported to CPUC.